

Patent Claims

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1. An arrangement for organizing flat items of mail in accordance with a definable sequence of delivery points assigned to the recipient addresses, having a reading arrangement for determining the direct or indirect address information located on the items of mail (3) separated by means of a separating arrangement,
- 10 a plurality of containers (1, 4) which circulate on at least one conveying arrangement and are intended for receiving, for transporting and for discharging in a controllable manner in each case one item of mail (3), a plurality of depositing receptacles (2) which are arranged along the conveying arrangement and receive the items of mail (3) from the containers (1), and a control arrangement which, with knowledge of the address information of all the items of mail (3) located in the containers (1), controls the discharge of the items of mail (3) from the containers (1) to the depositing receptacles (2) such that the sequence of the items of mail (3) in a definable order of the depositing receptacles (2) corresponds to the sequence of the delivery points assigned to the addresses,
- 25 characterized in that in each case a plurality of items of mail (3) can be destacked in organized fashion into the depositing receptacles (2), and in that the discharge of the items of mail (3) from the containers (1) into the depositing receptacles (2) takes place in a number of circulating cycles, the order of the items of mail (3) in each depositing receptacle (2) corresponding to the sequence of the delivery points assigned to the addresses of the items of mail (3) located in the respective depositing receptacle (2).
- 35 2. The arrangement as claimed in claim 1, characterized in that the depositing receptacles (2) are arranged in two rows which are aligned parallel to one another, at a distance apart, and horizontally.

3. The arrangement as claimed in claim 1, characterized in that depositing receptacles (2) or groups of depositing receptacles (2) are assigned to defined delivery points.

4. The arrangement as claimed in claim 1, characterized in that the items of mail (3) can be distributed over the depositing receptacles (2) such that a more or less equal number of items of mail (3) is located in each depositing receptacle (2).

5. The arrangement as claimed in claim 1, characterized in that a thickness-measuring arrangement is provided for measuring the thickness of the items of mail (3), and the items of mail (3) can be distributed over the depositing receptacles (2) such that all the mail stacks (5) are of approximately equal height.

6. The arrangement as claimed in one of claims 1 - 5, characterized in that the depositing receptacles (2) are subdivided into two more or less equally sized groups and, in the case of organizing sorting runs proceeding one after the other, the items of mail (3) of different address areas are alternately sorted only into one of the two depositing-receptacle groups.

7. The arrangement as claimed in claim 6, characterized in that the items of mail (3) of the current address area can be loaded into empty circulating containers (4) while items of mail (3) of the preceding address area are still located in containers (1).

8. The arrangement as claimed in claim 7, characterized in that the loading location of the containers (4) can be moved along the circulating containers (1, 4) in a controlled manner, within defined limits, such that the item of mail (3) which is

~~to be loaded in each case can be loaded, without any loading delay, into an empty container (4) located in the defined movement range of the loading location.~~

5 9. The arrangement as claimed in claims 3 and 8, characterized in that, once the non-sorted items of mail (3) have been loaded into the empty containers (4), pre-sorted items of mail (3) for the same address area can be loaded into the still empty containers (4)
10 or containers (4) which are just becoming empty as a result of the non-sorted items of mail (3) being discharged to the depositing receptacles (2), the delivery points being assigned place numbers in accordance with their defined order in the respective
15 depositing receptacles (3), and the pre-sorting operation taking place such that the items of mail (3) which are assigned to the delivery points with the lower place numbers can be separated before the items of mail (3) with the higher assigned place numbers.

20 10. The arrangement as claimed in claims 7 and 9, characterized in that the non-sorted items of mail (3) of the current address area can be loaded into empty circulating containers (4) while items of mail (3) of
25 the preceding address area are still located in containers (1).

30 11. A process for organizing flat items of mail in accordance with a definable sequence of delivery points assigned to the recipient addresses, in the case of which
the direct or indirect address information located on the separated items of mail (3) is read,
in each case one item of mail (3) is received into one
35 of a plurality of containers (1, 4) circulating on at least one conveying arrangement, is transported therein and is discharged in a controlled manner into depositing receptacles (2) arranged along the conveying arrangement, it being the case that, with knowledge of

the address information of all the items of mail (3) located in the containers (1), said items of mail are discharged from the containers (1) to the depositing receptacles (2) such that the sequence of the items of mail (3) in a definable order of the depositing receptacles (2) corresponds to the sequence of the delivery points assigned to the addresses, characterized in that in each case a plurality of items of mail (3) are destacked in organized fashion into the depositing receptacles (2), and in that the discharge of the items of mail (3) from the containers (1) into the depositing receptacles (2) takes place in a number of circulating cycles, the order of the items of mail (3) in each depositing receptacle (2) corresponding to the sequence of the delivery points assigned to the addresses of the items of mail located in the respective depositing receptacle (2).

12. The process as claimed in claim 11, characterized in that depositing receptacles (2) or groups of depositing receptacles (2) are assigned to defined delivery points.

13. The process as claimed in claim 11, characterized in that the items of mail (3) are distributed over the depositing receptacles (2) such that a more or less equal number of items of mail (3) is located in each depositing receptacle (2).

14. The process as claimed in claim 11, characterized in that the thickness of the items of mail (3) is measured and the items of mail (3) are distributed over the depositing receptacles (2) such that all the mail stacks (5) are of approximately equal height.

15. The process as claimed in one of claims 11 - 14, characterized in that the depositing receptacles (2) are subdivided into two more or less equally sized groups and, in the case of organizing sorting runs

~~proceeding one after the other, the items of mail (3)~~
of different address areas are alternately sorted only
into one of the two depositing-receptacle groups.

5 16. The process as claimed in claim 15, characterized
in that the items of mail (3) of the current address
area are loaded into empty circulating containers (4)
while items of mail (3) of the preceding address area
are still located in containers (1).

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17. The process as claimed in claim 11, characterized
in that, once the non-sorted items of mail (3) have
been loaded into the empty containers (4), pre-sorted
items of mail (3) for the same address area are loaded
15 into the still empty containers (4) or containers (4)
which are just becoming empty as a result of the
non-sorted items of mail (3) being discharged to the
depositing receptacles (2), the delivery points being
assigned place numbers in accordance with their defined
20 order in the respective depositing receptacles (2), and
the pre-sorting operation taking place such that the
items of mail (3) which are assigned to the delivery
points with the lower place numbers can be separated
before the items of mail (3) with the higher assigned
25 place numbers.

18. The process as claimed in claims 16 and 17,
characterized in that the non-sorted items of mail (3)
of the current address area are loaded into empty
30 circulating containers (4) while items of mail (3) of
the preceding address area are still located in
containers (1).